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Paper No. 21

UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Ex parte OLE K. NILSEN

Appeal No. 92-3748
Application 07/579,569¹

ON BRIEF

Before HAIRSTON, KRASS and CARDILLO, Administrative Patent Judges.

CARDILLO, Administrative Patent Judge.

ON REQUEST FOR RECONSIDERATION

Appellant requests that we reconsider our decision dated May 19, 1994, with respect to the sustaining of the 35 U.S.C. §103 rejection of claims 1, 8 to 12 and 19 to 27 as being unpatentable over the teachings of Pitel considered with those of Cox. Appellant also appears to request that we separately reconsider our 37 CFR § 1.196(b) new ground of rejection under 35

¹ Application for patent filed September 10, 1990. According to applicant, this is a continuation-in-part of Application 06/787,692, filed October 15, 1985; which is a continuation of Application 06/644,155, filed August 27, 1984, now abandoned; which is a continuation of Application 06/555,426, filed November 23, 1983, now abandoned; which is continuation of Application 06/178,107, filed August 14, 1980, now abandoned.

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U.S.C. § 103 of claims 28 and 29 as being unpatentable over the teachings of Pitel considered with those of Cox and Elms.

With respect to the sustained rejection of claims 1, 8 to 12 and 19 to 27, appellant suggests that we have erred (at page 2 of the request) because we failed to set forth the manner in which the "sinusoidal-like" high frequency voltage feature of Cox would be incorporated with the inverter circuit of Pitel which is argued to "inherently" provide a "squarewave-like" (emphasis appellant's) voltage. Next, appellant argues (at page 3 of the request) that, "both by implication and inherency, Applicant has indeed shown that there is benefit associated with having the natural resonance frequency of the inverter's tuned loading circuit be higher than the inverter fundamental frequency" (emphasis in original). Thus, appellant appears to challenge our finding of page 8 of our decision that "the claimed resonant frequency being chosen to be lower than the inverter fundamental frequency is not disclosed to provide any benefit, to be in any way critical or to solve any problem not solved if the resonant frequency is chosen to be equal to the fundamental frequency, as it is in Pitel." Lastly, appellant attacks the clear advantage we found at page 9 of our decision, as to the there noted Elms teaching, as a reason which would have led the artisan to the modification of Pitel that we proposed because "at the time of Pitel's invention" appellant asserts that "high

voltage power transistors had undesirably slow switching times and were scarce, unreliable, and very expensive" (see page 4 of the request).

Appellant's first point is not well taken because it presumes that the concept as to the broad range of useable inverter fundamental frequencies taught by Cox is somehow dependent on a particular waveform of the inverter output. As we attempted to explain to appellant, Cox teaches the concept of a very broad range of inverter fundamental frequencies which are higher than the natural resonant frequency of an associated tank circuit. This is the inverter fundamental frequency teaching relied upon by the examiner, not any use of any particular waveshape generated by the Cox inverter or any use of any or all of the elements 18, 2a or 2b of Cox. All that the artisan must then appreciate from this inverter fundamental frequency teaching of Cox is that a useful result is to be expected not only when the inverter fundamental frequency of Pitel is selected to match that of the natural resonant frequency of the associated Pitel tank circuit, but also when it is selected to be higher than this resonant frequency. Clearly, the result would be easily achieved by the artisan modifying the value of the tank circuit components to have a resonant frequency lower than that of the existing inverter fundamental frequency or by simply raising the inverter

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fundamental frequency relative to that of the unmodified tank circuit natural resonant frequency.

With respect to appellant's second point, it is unmistakable that the specification as filed makes no distinction between the inverter fundamental frequency being selected to be equal to that of the tank circuit natural resonant frequency or to be higher than that natural resonant frequency, since both options are clearly characterized as "desirable" (see page 7, lines 5-10 of the specification). Appellant now argues that for his disclosed inverter to self-oscillate, it is inherent that an inverter fundamental frequency higher than that of the natural resonant frequency of the tank circuit must be used. Besides the fact that this new argument contradicts the clear statement presented on the above noted portion of page 7 of the specification (not to mention page 2, lines 10-14, or claim 25 which has not been limited to require that the argued condition always exists), there is also the fact that none of the claims before us require that any inverter be "self-oscillating." As indicated in In re Fields, 304 F.2d 691, 134 USPQ 242 (CCPA 1962) in the context of a "criticality" determination, it is the claimed invention which is the concern and not disclosed but unclaimed subject matter. Here, appellant is relying on "criticality" relative to a "self-oscillating" inverter which is

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not expressly claimed or disclosed, much less indicated to be part of appellant's invention.

In this last regard, we note that the originally filed specification does not appear to us to reasonably convey to those of ordinary skill in the art that the use of a "self-oscillating" inverter is part of appellant's invention. See, e.g., In re Edwards, 568 F.2d 1349, 196 USPQ 465 (CCPA.1978) and In re Kaslow, 707 F.2d 1366, 217 USPQ 1089 (Fed. Cir. 1983). As noted on page 7 of the specification, the desirability of using an inversion frequency at "or higher than the natural resonance frequency of the inductor and capacitor combination" is "to provide a high voltage output to external load 26." Not one word appears as to the need to maintain the inverter fundamental frequency higher than the tank circuit resonant frequency so that inverter self-oscillation can be maintained. Appellant appears to us to, thus, be in a poor position to urge this benefit upon us as satisfying the dictates of the Kuhle decision we noted on page 8 of our decision. In any event, as we noted there and repeat here:

Besides the Cox teaching that the LC resonant frequency need not be set to be exactly the same as that of the inverter oscillator, we note the Walker discussion of inverter operation at frequencies above and below LC tank resonant frequency at column 3, lines 46-60. Clearly, nothing but well known expected results arise from departing from the exact resonant frequency-inverter

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frequency match noted by Pitel. Such well known expected benefits are evidence of obviousness. [citation omitted].

Turning to appellant's last point, we first note that the date of concern in a § 103 rejection is appellant's filing date, not that of the reference relied upon. Whatever the state of the art as to power transistors was as of Pitel's filing date of December 20, 1976 it is of no concern. Clearly, as of appellant's filing date, the date of concern relative to the question of obviousness, either the noted disadvantages no longer existed as to power transistors or appellant's previous knowledge proved to be faulty and/or simply incorrect. This latter condition seems to us to be the most likely given that Elms, who has a filing date four years prior to that of Pitel, teaches the use of two-transistor inverters. In any event, appellant's alleged "knowledge" is not true evidence of the state of the power transistor art as of any date. Moreover, with regard to slow switching of some undefined value and transistor unreliability, we note that the claims do not require switching at some value higher than the alleged "undesirably slow switching times" or that any transistors must be used in the broadly claimed inverters, much less that transistors of some particular degree of reliability must be used. Finally, scarcity and cost of apparently commercially available items are not evidence of unobviousness even if they could be shown. Economic reasons of


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concern to the businessman cannot be used as evidence of unobviousness without a showing of technological incompatibility. See Orthopedic Equipment co. v. United States, 702 F.2d 1005, 1013, 217 USPQ 193, 200 (Fed.Cir. 1983).

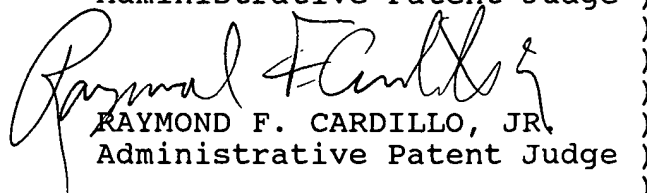
Appellant's request for reconsideration has been granted to the extent that we have reviewed our findings and decision relative to sustaining the rejection of claims 1, 8 to 12 and 19 to 27 and the application of the new ground of rejection as to claims 28 and 29, but is denied as to making any changes therein.

No time period for taking any subsequent action in connection with this appeal may be extended under 37 CFR 1.136(a).

DENIED


KENNETH W. HAIRSTON
Administrative Patent Judge)


ERROL A. KRASS
Administrative Patent Judge)


RAYMOND F. CARDILLO, JR.
Administrative Patent Judge)

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